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FERTILIZER REPORT

1942



MILES HORST
Secretary of Agriculture

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Pennsylvania Department of Agriculture

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FERTILIZER REPORT 1942

INTRODUCTION

All products intended for fertilizing purposes, except the dung of domestic animals, marl, lime, and wood ashes, shall be registered annually in accordance with the provisions of the Pennsylvania Fertilizer Law, Act of May 1, 1909, as amended.

Section 1 requires the following information to be shown on sacks or attached cards: (a) The number of pounds of fertilizer contained in the package; (b) the name, brand, or trade mark under which the fertilizer is sold; (c) the name and principal address of the manufacturer, importer, or other person putting the fertilizer on the market in this Commonwealth; (d) guarantee for nitrogen; (e) guarantee for total phosphoric acid, except in mixed or superphosphate fertilizer; (f) guarantee for available phosphoric acid; (g) guarantee for potash soluble in distilled water.

Mixed fertilizer shall contain at least sixteen units of plant food based upon guarantees for nitrogen, available phosphoric acid, and water soluble potash, the guarantees to be stated in even units.

Applications for registration are submitted to each previous licensee toward the close of the calendar year. The application must show the preceding year's tonnage sales of each brand in order that license or registration fee can be properly computed. For statistical purposes, tonnage sales for all brands must likewise be reported even though registration is not to be renewed.

Agents of the Bureau of Foods and Chemistry are empowered to collect samples of commercial fertilizers, at which time reports providing full information for each sample are prepared. The samples and reports are forwarded direct to the Harrisburg Laboratory where an immediate check of the record is effected to determine the registration status. Analyses are then performed to ascertain whether the fertilizers conform to their guarantees.

During the year 1942, Agents of the Department collected 673 official samples, and of this number, 632, representing 354 brands, registered by 41 manufacturers, were subjected to analysis and classified as follows:

	BRANDS	SAMPLES
Complete Fertilizers.....	246	454
Ground Bone Fertilizers.....	9	11
Superphosphate Fertilizers.....	41	91
Lime Phosphate Fertilizers.....	5	5
Rock and Potash Fertilizers.....	51	69
Miscellaneous Fertilizers.....	<u>2</u>	<u>2</u>
Total	354	632

BRANDS REGISTERED AND TONNAGE SALES

The registration fee for each new brand of fertilizer is \$15, and where old brands are to be re-registered, the scale of fees is as follows: 0 to 150 tons, \$15; over 150 tons to 250 tons, \$20; over 250 tons to 400 tons, \$30; over 400 tons to 500 tons, \$40; over 500 tons, \$50.

Licenses were issued to 118 manufacturers to cover sales of their brands for the year 1942. These licenses included 980 brands of which 774 were mixed fertilizers and 206 so-called "base" materials such as nitrate of soda, sulphate of ammonia, bone, etc.

The 1942 applications for registration showed that 375,595 tons of all classes of fertilizers were sold during the year 1941, (compared with 359,037 tons sold during 1940) and classified as follows: Complete Fertilizers, 264,444 tons; Ground Bone Fertilizers, 2,251 tons; Superphosphate Fertilizers, 88,549 tons; Lime Phosphate Fertilizers, 2,895 tons; Rock and Potash Fertilizers, 10,960 tons; and Miscellaneous Fertilizers, including the following: Tankage, 1,469 tons; Dried Blood, 2 tons; Nitrate of Soda, 302 tons; Potash Salts, 743 tons; Sulphate of Ammonia, 406 tons; and unclassified 3,574 tons.

The 1941 tonnage figure reveals that there were supplied 8,846 tons of nitrogen, 49,063 tons of available phosphoric acid, and 18,922 tons of water soluble potash, or a total of 76,832 tons of plant food. The amount of plant food is in excess of that supplied during the year 1940, namely, 72,410 tons.

CONCLUSIONS

Of the 632 official samples analyzed, 26 or 4.11% were found to be deficient in one or more elements of plant food, to the extent of .2% or more. The proportion of deficiencies is lower than that reported for the year 1941.

Considering the plant food elements separately, 10 samples or 2.14% were found to be deficient in nitrogen, 8 or 1.27% deficient in phosphoric acid, and 9 or 1.71% deficient in water soluble potash.

Of the total number of fertilizers analyzed, 454 were complete fertilizers and 20 or 4.40% were found to be deficient, 10 or 2.20% deficient in nitrogen, 6 or 1.32% in available phosphoric acid, 4 or 0.88% in water soluble potash.

The Law requires that when the word "tobacco" is used as a part of the brand name, the potash content must be in a form other than chloride.

The average unit values, estimated from the average retail selling prices, were as follows: Nitrogen \$3.20, Available Phosphoric Acid 1.11, Water Soluble Potash \$1.40.

The average retail selling price for Complete Fertilizers was \$34.44 a ton, compared with \$31.63 for 1941.

It is noted that 4.11% of all samples collected during the year 1942 were found to be deficient, which deficiency is lower than the previous year's inspection. In most instances the deficiencies were balanced by overages in other elements. Where the deficiencies were found to be of a serious nature, prosecution was instituted.

TABLE I DEFICIENCIES

CLASS OF FERTILIZERS	SAMPLES	Number Deficient in		
		NITROGEN	AVAILABLE PHOSPHORIC ACID	POTASH
Complete Fertilizers.....	454	10	6	4
Ground Bone Fertilizers.....	11	--	-	-
Superphosphate Fertilizers....	91	--	-	-
Lime Phosphate Fertilizers....	5	--	-	-
Rock and Potash Fertilizers...	69	--	2	5
Miscellaneous Fertilizers.....	<u>2</u>	<u>--</u>	<u>-</u>	<u>-</u>
TOTAL	632	10	8	9

TABLE II AVERAGE ANALYSES AND RETAIL PRICES

FORM OF PLANT FOOD	COMPLETE FERTILIZERS	GROUND BONE FERTI- LIZERS	SUPERPHOS- PHATE FERTI- LIZERS*	ROCK AND POTASH FERTI- LIZERS
	Per Cent	Per Cent	Per Cent	Per Cent
Nitrogen.....	3.73	3.33	----	----
Total Phosphoric Acid.....	----	24.04	----	----
Available Phosphoric Acid.	11.53	----	21.30	15.43
Potash.....	6.97	----	----	9.58
Selling Price 1942.....	\$34.44	\$54.51	\$23.61	\$30.41
Selling Price 1941.....	\$31.63	\$50.90	\$21.08	\$28.24

*Excluding Lime Phosphate

KEY TO TABLES

The following tables include the results of chemical analyses of the official samples. Each sample was given a chemist's number and analyzed for the element or elements guaranteed.

The asterisk (*) indicates those samples found to be deficient to the extent of .2% or more.

Table III. Complete Fertilizers, furnishing Nitrogen, Available Phosphoric Acid, and Potash.

Table IV. Ground Bone Fertilizers, furnishing Nitrogen and Total Phosphoric Acid.

Table V. Superphosphate and Lime Phosphate Fertilizers, furnishing Available Phosphoric Acid.

Table VI. Rock and Potash Fertilizers, furnishing Available Phosphoric Acid and Potash.

Table VII. Miscellaneous Fertilizers, including Nitrate of Soda, and Muriate of Potash.

WARNING

"Section 5. Any person or persons selling, offering, or exposing for sale, any commercial fertilizer or any brand of the same, having a distinct trade-name, without the analysis required by section one of this act, or with an analysis stating that it contains a larger percentage of any one or more of the above-named constituents than is contained therein, or for the sale of which all the provisions of sections two and three have not been complied with, or any person violating any of the provisions of section four of this act, shall be guilty of a misdemeanor, and, on conviction, shall be sentenced to pay a fine of not less than twenty-five nor more than one hundred dollars for the first offense, and not less than two hundred dollars for each subsequent offence....."

The Department of Agriculture, as the agency charged by the Legislature with the enforcement of the provisions of the Fertilizer Law, copies of which are available upon request, insists upon strict compliance therewith.

*Act of May 1, 1909, P. L. 344 as amended.

TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME			NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		
			Found	Guar.	Found	Guar.	Found	Guar.	As Muriate
			P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
THE ACME GUANO CO. Baltimore, Md.									
Acme Fertilizer	3-12-6 (7489)	3.29	3.00	12.17	12.00	6.18	6.00	---	
Acme Fertilizer	2-9-5 (7488)	2.30	2.00	9.43	9.00	5.20	5.00	---	
J. & L. ADIKES Jamaica, New York									
Gro-Well Rose Food	(7374)	3.23	3.00	11.52	10.00	7.21	6.00	---	
AMERICAN AGRICULTURAL CHEMICAL CO. New York, N. Y.									
AA Climax Fertilizer	3-12-6 (7487)	3.28	3.00	12.73	12.00	6.37	6.00	---	
AA Climax Fertilizer	3-12-6 (7733)	2.85	3.00	12.53	12.00	6.13	6.00	---	
AA Climax Fertilizer	3-12-6 (7741)	3.14	3.00	11.88	12.00	6.22	6.00	---	
AA Climax Fertilizer	3-12-6 (7748)	3.09	3.00	11.88	12.00	6.30	6.00	---	
AA Gladietor Fertilizer	4-6-8 (7470)	4.15	4.00	9.04	8.00	7.94	8.00	---	
AA Gladietor Fertilizer	4-6-8 (7727)	4.17	4.00	8.91	8.00	8.02	8.00	---	
AA Gladietor Fertilizer	4-6-8 (7748)	4.01	4.00	8.82	8.00	8.09	8.00	---	
AA Horseshoe Fertilizer	2-12-6 (7433)	2.01	2.00	12.72	12.00	6.50	6.00	---	
AA Horseshoe Fertilizer	2-12-6 (7732)	2.03	2.00	13.20	12.00	6.93	6.00	---	
AA Old Hickory Fertilizer	2-8-10 (7732)	2.03	2.00	8.74	8.00	10.24	10.00	---	
AA Old Hickory Fertilizer	2-8-10 (7744)	2.01	2.00	8.41	8.00	10.99	10.00	---	
AA Pathfinder Fertilizer	4-12-4 (7483)	4.02	4.00	13.18	12.00	3.96	4.00	---	
AA Pathfinder Fertilizer	4-12-4 (7615)	4.01	4.00	12.06	12.00	4.60	4.00	---	
AA Pathfinder Fertilizer	4-12-4 (7798)	4.16	4.00	12.31	12.00	4.59	4.00	---	
AA Red Dog Fertilizer	2-9-5 (7478)	1.81	2.00	9.17	9.00	6.71	5.00	---	
AA Red Seal Fertilizer	5-10-5 (7750)	5.01	5.00	10.57	10.00	5.22	5.00	---	
AA Red Seal Fertilizer	5-10-5 (7791)	5.00	5.00	10.35	10.00	5.28	5.00	---	
AA Two in One Fertilizer	4-16-4 (7482)	4.62	4.00	16.00	16.00	4.60	4.00	---	
AA Two in One Fertilizer	4-16-4 (7618)	4.10	4.00	17.44	16.00	4.22	4.00	---	
AA Two in One Fertilizer	4-16-4 (7728)	4.29	4.00	16.18	16.00	4.46	4.00	---	
AA Two in One Fertilizer	4-16-4 (7743)	4.23	4.00	17.86	16.00	4.41	4.00	---	
Agrico Country Club Fertilizer	8-6-4 (7795)	*7.61	8.00	6.81	6.00	4.58	4.00	---	
Agrico Country Club Fertilizer									
Agrico for Corn	8-6-2 (7796)	7.81	8.00	6.57	6.00	2.38	2.00	---	
Agrico for Corn	3-12-6 (7379)	3.18	3.00	12.73	12.00	6.42	6.00	---	
Agrico for Corn	3-12-6 (7471)	3.17	3.00	12.76	12.00	6.24	6.00	---	
Agrico for Corn	3-12-6 (7613)	3.14	3.00	12.02	12.00	6.26	6.00	---	
Agrico for Corn	3-12-6 (7703)	3.00	3.00	12.38	12.00	6.22	6.00	---	
Agrico for Corn	3-12-6 (7711)	3.12	3.00	13.03	12.00	6.17	6.00	---	
Agrico for Corn	3-12-6 (7747)	3.06	3.00	12.56	12.00	6.43	6.00	---	
Agrico for Corn	3-12-6 (7800)	3.06	3.00	12.66	12.00	7.33	6.00	---	
Agrico for Corn	3-12-6 (7928)	3.01	3.00	12.59	12.00	6.43	6.00	---	
Agrico for Corn	3-12-6 (7986)	3.14	3.00	12.74	12.00	6.76	6.00	---	
Agrico for Fruit	10-6-4 (7481)	9.88	10.00	7.09	6.00	4.21	4.00	---	
Agrico for Fruit	10-6-4 (7792)	9.90	10.00	7.14	6.00	4.69	4.00	---	
Agrico for Grain	2-12-4 (7476)	2.03	2.00	12.79	12.00	5.00	4.00	---	
Agrico for Grain	2-12-4 (7930)	2.03	2.00	12.72	12.00	4.28	4.00	---	
Agrico for Grain	2-12-6 (7611)	2.04	2.00	12.41	12.00	6.29	6.00	---	
Agrico for Grain	2-12-6 (7699)	2.05	2.00	12.42	12.00	6.11	6.00	---	
Agrico for Grain	2-12-6 (7710)	2.00	2.00	12.70	12.00	6.40	6.00	---	
Agrico for Grain	2-12-6 (7799)	2.06	2.00	13.21	12.00	6.37	6.00	---	
Agrico for Grain	2-12-6 (7802)	2.01	2.00	12.19	12.00	6.29	6.00	---	
Agrico for Grain	2-16-6 (7474)	2.24	2.00	17.16	16.00	6.89	6.00	---	
Agrico for Potatoes	4-0-8 (7468)	4.17	4.00	8.34	8.00	8.53	8.00	---	
Agrico for Potatoes	4-8-8 (7709)	4.02	4.00	8.01	8.00	9.12	8.00	---	
Agrico for Potatoes	4-8-8 (7746)	3.90	4.00	8.20	8.00	8.56	8.00	---	
Agrico for Potatoes	4-0-8 (7793)	3.93	4.00	8.12	8.00	9.10	8.00	---	
Agrico for Potatoes	4-8-8 (7985)	3.92	4.00	9.07	8.00	8.34	8.00	---	
Agrico for Potatoes	4-0-10 (7473)	4.06	4.00	8.64	8.00	11.55	10.00	---	
Agrico for Potatoes	5-15-15 (7614)	5.09	5.00	15.40	15.00	15.33	15.00	---	
Agrico for Potatoes	5-15-15 (7742)	5.02	5.00	15.16	15.00	15.13	15.00	---	
Agrico for Potatoes	5-15-15 (7983)	5.02	5.00	16.07	15.00	15.03	15.00	---	
Agrico for Tomatoes	4-14-6 (7469)	4.30	4.00	13.88	14.00	6.85	6.00	---	
Agrico for Tomatoes	4-14-6 (7794)	4.09	4.00	15.16	14.00	6.72	6.00	---	
Agrico for Top Dressing	7-7-7 (7479)	7.22	7.00	7.86	7.00	6.86	7.00	---	
Agrico for Top Dressing	7-7-7 (7797)	6.86	7.00	7.66	7.00	7.20	7.00	---	
Agrico for Truck	5-10-5 (7431)	5.29	5.00	10.08	10.00	5.54	5.00	---	
Agrico for Truck	5-10-5 (7485)	5.29	5.00	10.51	10.00	5.64	5.00	---	
Agrico for Truck	5-10-5 (7702)	5.01	5.00	10.23	10.00	5.03	5.00	---	
Agrico for Truck	5-10-5 (7730)	5.17	5.00	9.82	10.00	5.47	5.00	---	
Agrico for Truck	5-10-5 (7745)	5.04	5.00	11.18	10.00	5.60	5.00	---	
Agrico for Truck	5-10-5 (7801)	4.86	5.00	11.90	10.00	5.38	5.00	---	
Agrico for Truck	5-10-5 (7805)	5.29	5.00	11.33	10.00	5.29	5.00	---	
Agrico for Truck	5-10-5 (7984)	5.07	5.00	11.14	10.00	5.22	5.00	---	
Agrico for Wheat	2-12-6 (7432)	2.06	2.00	12.38	12.00	6.44	6.00	---	
Lister's Harvest Queen Fertilizer	2-9-5 (7731)	2.01	2.00	8.94	9.00	4.81	5.00	---	
ARMOUR FERTILIZER WORKS Baltimore, Md.									
Armour's Big Crop Fertilizer	2-9-5 (7449)	2.10	2.00	9.32	9.00	5.26	5.00	---	
Armour's Big Crop Fertilizer	2-12-4 (7454)	2.70	2.00	*11.56	12.00	5.04	4.00	---	
Armour's Big Crop Fertilizer	2-12-6 (7383)	2.26	2.00	12.02	12.00	6.42	6.00	---	
Armour's Big Crop Fertilizer	2-12-6 (7448)	2.00	2.00	12.40	12.00	6.01	6.00	---	
Armour's Big Crop Fertilizer	2-12-6 (7620)	2.01	2.00	12.96	12.00	6.17	6.00	---	
Armour's Big Crop Fertilizer	2-12-6 (7902)	2.00	2.00	12.23	12.00	6.20	6.00	---	
Armour's Big Crop Fertilizer	2-12-6 (7932)	2.01	2.00	12.38	12.00	6.73	6.00	---	
Armour's Big Crop Fertilizer	2-12-6 (7964)	2.01	2.00	12.69	12.00	6.19	6.00	---	

* Deficient

TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME	NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		
	Found	Guar.	Found	Guar.	Found	Guar.	As Muriate
Armour's Sig Crop Fertilizer 3-12-6 (7384)	P. ct. 2.95	P. ct. 3.00	P. ct. 12.50	P. ct. 12.00	P. ct. 6.40	P. ct. 6.00	P. ct. ---
Armour's Sig Crop Fertilizer 3-12-6 (7447)	2.90	3.00	12.07	12.00	6.71	6.00	---
Armour's Sig Crop Fertilizer 3-12-6 (7700)	3.01	3.00	12.46	12.00	5.93	6.00	---
Armour's Sig Crop Fertilizer 3-12-6 (7806)	3.22	3.00	12.81	12.00	6.76	6.00	---
Armour's Sig Crop Fertilizer 3-12-6 (7965)	2.99	3.00	12.13	12.00	6.40	6.00	---
Armour's Sig Crop Fertilizer 4-8-8 (7382)	4.08	4.00	8.59	8.00	8.74	8.00	---
Armour's Sig Crop Fertilizer 4-8-8 (7450)	4.01	4.00	8.57	8.00	8.12	8.00	---
Armour's Sig Crop Fertilizer 4-8-8 (7621)	4.02	4.00	8.50	8.00	8.12	8.00	---
Armour's Sig Crop Fertilizer 4-8-8 (7704)	4.01	4.00	7.82	8.00	8.24	8.00	---
Armour's Sig Crop Fertilizer 4-8-8 (7807)	4.03	4.00	8.66	8.00	8.65	8.00	---
Armour's Sig Crop Fertilizer 4-8-8 (7903)	3.86	4.00	8.63	8.00	8.31	8.00	---
Armour's Sig Crop Fertilizer 4-8-8 (7960)	4.00	4.00	8.46	8.00	8.02	8.00	---
Armour's Sig Crop Fertilizer 4-12-4 (7453)	4.02	4.00	12.35	12.00	4.47	4.00	---
Armour's Sig Crop Fertilizer 4-12-4 (7788)	4.01	4.00	12.04	12.00	4.26	4.00	---
Armour's Sig Crop Fertilizer 4-12-4 (7931)	4.02	4.00	11.96	12.00	4.33	4.00	---
Armour's Sig Crop Fertilizer 4-16-4 (7451)	4.01	4.00	16.74	16.00	4.68	4.00	---
Armour's Sig Crop Fertilizer 4-16-4 (7961)	3.89	4.00	16.40	16.00	4.81	4.00	---
Armour's Sig Crop Fertilizer 5-10-5 (7787)	4.83	5.00	10.47	10.00	5.72	5.00	---
Armour's Sig Crop Fertilizer 5-10-5 (7962)	4.89	5.00	10.55	10.00	5.72	5.00	---
Armour's Special Top Dresser 10-6-4 (7452)	*7.59	10.00	8.12	6.00	4.59	4.00	---
BAUGH & SONS CO. Philadelphia, Pa.							
Baugh's 2-12-4 (7464)	2.28	2.00	12.22	12.00	4.10	4.00	---
Baugh's 5-10-10 (7663)	5.25	5.00	10.12	10.00	10.19	10.00	---
Baugh's 5-10-10 (7666)	5.16	5.00	10.25	10.00	10.75	10.00	---
Baugh's 6-6-5 (7674)	5.82	6.00	6.72	6.00	5.55	5.00	---
Baugh's 10-6-4 (7542)	10.01	10.00	6.87	6.00	4.75	4.00	---
Baugh's Approved Truck Grower (7399)	4.19	4.00	8.27	8.00	8.26	8.00	---
Baugh's Approved Truck Grower (7466)	4.12	4.00	8.54	8.00	7.85	8.00	---
Baugh's Approved Truck Grower (7670)	3.82	4.00	8.16	8.00	7.83	8.00	---
Baugh's Approved Truck Grower (7729)	4.05	4.00	8.67	8.00	8.03	8.00	---
Baugh's Approved Truck Grower (7887)	4.28	4.00	8.49	8.00	10.14	8.00	---
Baugh's Approved Truck Grower (7923)	4.01	4.00	8.26	8.00	8.57	8.00	---
Baugh's Balanced Plant Food (7458)	4.29	4.00	12.63	12.00	4.21	4.00	---
Baugh's Balanced Plant Food (7631)	4.14	4.00	12.81	12.00	4.60	4.00	---
Baugh's Balanced Plant Food (7667)	4.29	4.00	12.11	12.00	4.57	4.00	---
Baugh's Commercial Crop Compound (7467)	2.15	2.00	8.27	8.00	10.38	10.00	---
Baugh's Commercial Crop Compound (7735)	3.16	2.00	9.04	8.00	10.02	10.00	---
Baugh's Commercial Crop Compound (7989)	2.16	2.00	8.52	8.00	10.58	10.00	---
Baugh's Complete Animal Base Fertilizer (7419)	2.11	2.00	9.11	9.00	4.88	5.00	---
Baugh's Complete Animal Base Fertilizer (7460)	2.30	2.00	9.60	9.00	5.04	5.00	---
Baugh's Complete Animal Base Fertilizer (7988)	2.21	2.00	10.56	9.00	5.62	5.00	---
Baugh's Corn & Oats Fertilizer (7402)	2.28	2.00	12.01	12.00	4.02	4.00	---
Baugh's Corn & Oats Fertilizer (7888)	2.19	2.00	12.65	12.00	4.56	4.00	---
Baugh's Double Eagle Phosphate (7404)	2.15	2.00	12.20	12.00	6.46	6.00	---
Baugh's Double Eagle Phosphate (7461)	2.29	2.00	12.80	12.00	6.07	6.00	---
Baugh's Double Eagle Phosphate (7635)	2.28	2.00	12.68	12.00	6.75	6.00	---
Baugh's Double Eagle Phosphate (7669)	2.56	2.00	11.80	12.00	6.17	6.00	---
Baugh's Double Eagle Phosphate (7815)	2.27	2.00	12.70	12.00	6.85	6.00	---
Baugh's Double Eagle Phosphate (7924)	2.24	2.00	12.77	12.00	6.82	6.00	---
Baugh's Double Power Fertilizer (7465)	4.30	4.00	17.50	16.00	4.25	4.00	---
Baugh's Double Power Fertilizer (7633)	4.23	4.00	17.28	16.00	4.74	4.00	---
Baugh's Double Power Fertilizer (7736)	4.29	4.00	16.52	16.00	4.41	4.00	---
Baugh's Double Power Fertilizer (7817)	4.01	4.00	17.44	16.00	4.84	4.00	---
*Deficient							

TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME	NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		
	Found	Guar.	Found	Guar.	Found	Guar.	As Muriate
	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
Baugh's Old Dependable Potato Grower (7400)	4.02	4.00	9.02	8.00	10.09	10.00	---
Baugh's Old Dependable Potato Grower (7671)	4.12	4.00	8.57	8.00	10.17	10.00	---
Baugh's Perfection Brand (7403)	3.27	3.00	12.45	12.00	6.57	6.00	---
Baugh's Perfection Brand (7632)	3.20	3.00	12.59	12.00	6.10	6.00	---
Baugh's Perfection Brand (7672)	3.29	3.00	11.82	12.00	6.10	6.00	---
Baugh's Perfection Brand (7616)	3.21	3.00	12.81	12.00	6.46	6.00	---
Baugh's Perfection Brand (7925)	3.27	3.00	12.04	12.00	6.76	6.00	---
Baugh's Premium Plant Food & Soil Builder 2-12-6 (7889)	2.15	2.00	12.90	12.00	6.91	6.00	---
Baugh's Premium Plant Food & Soil Builder 3-12-6 (7401)	3.07	3.00	12.75	12.00	6.42	6.00	---
Baugh's Premium Plant Food & Soil Builder 3-12-6 (7673)	3.28	3.00	12.32	12.00	6.81	6.00	---
Baugh's Truckers Favorite (7457)	5.29	5.00	10.59	10.00	5.01	5.00	---
Baugh's Truckers Favorite (7634)	5.21	5.00	10.20	10.00	5.23	5.00	---
Baugh's Truckers Favorite (7926)	5.08	5.00	10.39	10.00	5.49	5.00	---
Baugh's Wheat Fertilizer (7462)	3.22	3.00	13.11	12.00	5.68	6.00	---
HERBERT BRYANT INC. Alexandria, Virginia							
H. B. I. 2-9-5 (7754)	2.05	2.00	10.07	9.00	5.01	5.00	---
H. B. I. 2-9-5 (7754)	2.05	2.00	10.07	9.00	5.01	5.00	---
H. B. I. 2-12-6 (7753)	2.29	2.00	11.80	12.00	6.02	6.00	---
CENTRAL CHEMICAL CORPORATION Hagerstown, Md.							
Farmrite Excelsior (7389)	2.29	2.00	9.36	9.00	5.45	5.00	---
Farmrite Excelsior (7499)	2.01	2.00	10.70	9.00	5.68	5.00	---
Farmrite Excelsior (7898)	2.05	2.00	9.41	9.00	6.25	5.00	---
Farmrite Famous Corn Food (7525)	3.07	3.00	12.04	12.00	6.15	6.00	---
Farmrite Farmers Favorite (7638)	4.12	4.00	12.38	12.00	4.00	4.00	---
Farmrite Famous Favorite (7897)	4.11	4.00	12.71	12.00	4.97	4.00	---
Farmrite Famous Fruit Food (7532)	9.81	10.00	7.17	6.00	4.73	4.00	---
Farmrite Famous Old Fish Brand (7395)	2.16	2.00	12.15	12.00	6.77	6.00	---
Farmrite Famous Old Fish Brand (7497)	2.29	2.00	12.32	12.00	6.23	6.00	---
Farmrite Famous Potato Food (7523)	4.11	4.00	8.77	8.00	8.11	8.00	---
Farmrite Famous Potato Food (7643)	3.81	4.00	7.96	8.00	8.83	8.00	---
Farmrite Famous Tomato Fertilizer (7531)	3.87	4.00	12.25	12.00	7.09	6.00	---
Farmrite Fertilizer 2-12-6 (7398)	2.69	2.00	12.52	12.00	*5.54	6.00	---
Farmrite Fertilizer 2-12-6 (7528)	2.01	2.00	12.65	12.00	6.66	6.00	---
Farmrite Fertilizer 2-12-6 (7641)	2.29	2.00	12.91	12.00	6.63	6.00	---
Farmrite Fertilizer 8-16-16 (7524)	7.86	8.00	16.28	16.00	16.01	16.00	---
Farmrite Golden Grain (7391)	3.29	3.00	12.60	12.00	6.14	6.00	---
Farmrite Golden Grain (7533)	3.13	3.00	12.48	12.00	6.38	6.00	---
Farmrite Golden Grain (7636)	3.14	3.00	12.95	12.00	6.80	6.00	---
Farmrite Golden Grain (7601)	3.13	3.00	12.72	12.00	6.93	6.00	---
Farmrite Grain Food (7523)	2.23	2.00	12.44	12.00	4.98	4.00	---
Farmrite Grain Food (7527)	1.89	2.00	12.10	12.00	4.17	4.00	---
Farmrite Grain Food (7640)	2.03	2.00	12.24	12.00	5.19	4.00	---
Farmrite Imperial (7394)	2.17	2.00	8.22	8.00	9.84	10.00	---
Farmrite Imperial (7522)	2.06	2.00	8.08	8.00	10.20	10.00	---
Farmrite Potato Grower (7390)	4.19	4.00	8.36	8.00	8.74	8.00	---
Farmrite Potato Grower (7498)	4.08	4.00	8.06	8.00	8.18	8.00	---
Farmrite Potato Grower (7699)	4.20	4.00	8.38	8.00	8.65	8.00	---
Farmrite Potato Special (7437)	3.84	4.00	8.59	8.00	7.31	7.00	---
Farmrite Super Special (7397)	4.61	4.00	*15.08	16.00	4.16	4.00	---
Farmrite Super Special (7439)	4.01	4.00	16.48	16.00	5.16	4.00	---
Farmrite Truck Special (7863)	*4.75	5.00	10.76	10.00	5.20	5.00	---
Farmrite Truck Special (7530)	5.06	5.00	10.71	10.00	5.37	5.00	---
COOPERATIVE FERTILIZER SERVICE Baltimore, Md.							
C. F. S. 2-9-5 (7609)	2.22	2.00	10.10	9.00	5.72	5.00	---
C. F. S. 2-8-10 (7605)	2.12	2.00	8.56	8.00	9.80	10.00	---
C. F. S. 2-12-6 (7607)	2.24	2.00	12.13	12.00	6.22	6.00	---
C. F. S. 3-12-6 (7608)	3.29	3.00	12.02	12.00	5.97	6.00	---
C. F. S. 3-12-6 (7614)	3.28	3.00	12.52	12.00	6.60	6.00	---
C. F. S. 4-8-8 (7606)	4.02	4.00	8.88	8.00	8.06	8.00	---
C. F. S. 4-16-4 (7917)	4.10	4.00	16.09	16.00	4.45	4.00	---
COOPERATIVE G.L.F. SOIL BUILDING SERVICE INC. Ithaca, New York							
G. L. F. 2-8-10 Non Acid (7768)	2.01	2.00	8.56	8.00	10.32	10.00	---
G. L. F. 2-12-6 Non Acid (7764)	2.14	2.00	12.27	12.00	6.72	6.00	---
G. L. F. 3-12-6 Non Acid (7725)	3.19	3.00	11.80	12.00	7.14	6.00	---
G. L. F. 3-12-6 Non Acid (7765)	3.01	3.00	12.37	12.00	6.75	6.00	---
G. L. F. 3-12-6 Non Acid (7857)	3.28	3.00	12.71	12.00	6.42	6.00	---
G. L. F. 3-12-6 Non Acid (7883)	3.57	3.00	13.24	12.00	6.90	6.00	---
G. L. F. 4-8-8 Non Acid (7851)	4.29	4.00	8.03	8.00	8.97	8.00	---
G. L. F. 4-12-4 Non Acid (7723)	4.04	4.00	12.54	12.00	4.50	4.00	---
G. L. F. 4-12-12 (7722)	4.06	4.00	12.25	12.00	12.71	12.00	---
G. L. F. 5-10-5 Non Acid (7767)	5.26	5.00	11.82	10.00	5.91	5.00	---
G. L. F. 5-10-5 Non Acid (7884)	5.30	5.00	11.42	10.00	5.58	5.00	---
G. L. F. 5-10-10 Non Acid (7863)	5.50	5.00	9.83	10.00	10.02	10.00	---
G. L. F. 5-10-10 Non Acid (7894)	4.85	5.00	10.38	10.00	12.55	10.00	---
G. L. F. 5-20-5 (7724)	*4.52	5.00	24.35	20.00	*4.08	5.00	---
COOPERATIVE SOUTHERN STATES FERTILIZER SERVICE INC. Baltimore, Md.							
Open Formula Fruit Tree Special 10-6-4 (7915)	*8.53	10.00	7.47	6.00	4.96	4.00	---
*Deficient							

TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME	NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		
	Found	Guar.	Found	Guar.	Found	Guar.	As Muriate
	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
CUMBERLAND VALLEY COOPERATIVE ASSOCIATION Shippensburg, Pa.							
Old Reliable 3-12-6 (7547)	*1.76	3.00	12.38	12.00	6.01	6.00	---
THE DAVISON CHEMICAL CORPORATION Baltimore, Md.							
Devco Granulated Fertilizer 2-5-5 (7519)	2.20	2.00	10.00	9.00	5.60	5.00	---
Devco Granulated Fertilizer 2-12-6 (7520)	2.10	2.00	12.76	12.00	6.01	6.00	---
Devco Granulated Fertilizer 2-11-6 (7625)	2.09	2.00	13.39	12.00	6.38	6.00	---
Devco Granulated Fertilizer 2-12-6 (7922)	2.00	2.00	*11.66	12.00	6.89	6.00	---
Devco Granulated Fertilizer 3-12-6 (7949)	1.80	2.00	11.84	12.00	6.52	6.00	---
Devco Granulated Fertilizer 3-12-6 (7628)	3.14	3.00	12.60	12.00	6.57	6.00	---
Devco Granulated Fertilizer 3-12-6 (7761)	3.08	3.00	12.03	12.00	6.37	6.00	---
Devco Granulated Fertilizer 3-12-6 (7820)	2.89	3.00	12.65	12.00	6.65	6.00	---
Devco Granulated Fertilizer 3-12-6 (7921)	3.29	3.00	12.10	12.00	6.89	6.00	---
Devco Granulated Fertilizer 3-12-6 (7950)	3.18	3.00	12.27	12.00	6.31	6.00	---
Devco Granulated Fertilizer 4-3-3 (7629)	4.29	4.00	8.39	8.00	8.22	8.00	---
Devco Granulated Fertilizer 4-3-3 (7784)	4.30	4.00	8.09	8.00	*7.60	8.00	---
Devco Granulated Fertilizer 4-3-3 (7920)	4.11	4.00	8.31	8.00	8.75	8.00	---
Devco Granulated Fertilizer 4-3-3 (7953)	3.89	4.00	8.02	8.00	8.00	8.00	---
Devco Granulated Fertilizer 4-12-4 (7627)	4.20	4.00	12.06	12.00	4.35	4.00	---
Devco Granulated Fertilizer 4-12-4 (7782)	4.29	4.00	12.96	12.00	4.98	4.00	---
Devco Granulated Fertilizer 4-12-4 (7783)	4.28	4.00	12.78	12.00	4.96	4.00	---
Devco Granulated Fertilizer 4-12-4 (7895)	4.03	4.00	12.86	12.00	4.17	4.00	---
Devco Granulated Fertilizer 4-12-4 (7952)	4.16	4.00	12.39	12.00	4.23	4.00	---
Devco Granulated Fertilizer 4-16-4 (7780)	3.90	4.00	16.60	16.00	4.44	4.00	---
Devco Granulated Fertilizer 4-16-4 (7951)	4.29	4.00	*15.50	16.00	4.50	4.00	---
Devco Granulated Fertilizer 5-10-5 (7630)	5.30	5.00	10.13	10.00	5.49	5.00	---
Devco Granulated Fertilizer 5-10-5 (7778)	4.86	5.00	11.57	10.00	5.47	5.00	---
Devco Granulated Fertilizer 5-10-10 (7954)	5.01	5.00	16.80	10.00	10.22	10.00	---
Devco Granulated Iono Food (7442)	10.14	10.00	6.74	6.00	4.41	4.00	---
Devco Granulated Pomo Food 10-6-4 (7955)	9.85	10.00	6.71	6.00	4.39	4.00	---
Devco Granulated Tomato Food (7444)	4.30	4.00	12.57	12.00	6.38	6.00	---
Old Reliable 4-3-3 (7646)	4.01	4.00	8.87	8.00	7.62	8.00	---
PAUL J. DEVITT Upper Darby, Pa.							
Devco Lawn-Garden-Flower Fertilizer (7831)	4.30	4.00	12.92	12.00	5.14	4.00	---
EASTERN STATES FARMERS' EXCHANGE Springfield, Mass.							
Eastern States 4-12-8 (7696)	4.70	4.00	16.58	16.00	8.76	8.00	---
Eastern States 4-24-12 (7492)	4.29	4.00	25.30	24.00	12.54	12.00	---
Eastern States 4-24-12 (7695)	4.29	4.00	25.44	24.00	13.29	12.00	---
Eastern States 4-24-12 (7758)	4.28	4.00	23.84	24.00	13.50	12.00	---
Eastern States 4-24-12 (7667)	4.11	4.00	24.58	24.00	13.62	12.00	---
Eastern States 5-10-10 (7495)	5.28	5.00	10.78	10.00	10.86	10.00	---
Eastern States 5-10-10 (7570)	5.07	5.00	10.89	10.00	10.97	10.00	---
Eastern States 8-15-5 (7740)	8.64	8.00	15.94	15.00	5.66	5.00	---
Eastern States 8-16-16 (7493)	8.28	8.00	16.86	16.00	15.93	16.00	---
Eastern States 8-16-16 (7698)	8.18	8.00	16.60	16.00	17.16	16.00	---
Eastern States 8-16-16 (7737)	8.25	8.00	16.18	16.00	16.62	16.00	---
Eastern States 8-16-16 (7966)	8.01	8.00	16.49	16.00	16.87	16.00	---
Eastern States 8-24-8 (7491)	8.17	8.00	25.38	24.00	9.24	8.00	---
Eastern States 8-24-8 (7697)	8.20	8.00	24.48	24.00	9.93	8.00	---
AMOS EBY & COMPANY Paradise, Pa.							
Eby Challenge (7569)	4.06	4.00	8.53	8.00	9.05	8.00	---
Eby Grass Special (7568)	7.18	7.00	6.66	6.00	5.24	5.00	---
Eby Leaf (7565)	4.29	4.00	8.52	8.00	12.14	12.00	---
Eby Pequea Ammoniated (7573)	1.17	1.00	10.40	10.00	6.50	5.00	---
Eby Pequea Economy (7572)	2.01	2.00	12.79	12.00	6.15	6.00	---
Eby Pequea High Grade (7566)	5.00	5.00	7.30	6.00	5.28	5.00	---
Eby Pequea High Grade (7567)	5.01	5.00	6.96	6.00	5.59	5.00	---
Eby Pequea Special Potato (7570)	3.05	3.00	9.61	8.00	9.19	7.00	---
Eby Valley Fertilizer (7571)	2.25	2.00	8.15	8.00	11.92	10.00	---

*Deficient

TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME		NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		
		Found	Guar.	Found	Guar.	Found	Guar.	As Muriate
		P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
ECONOMY NURSERY CO. Little Silver, New Jersey								
Rose Food	(7647)	4.28	4.00	8.20	8.00	3.13	2.00	---
GRIFFITH & BOYD CO. Baltimore, Md.								
Extra Strength Guano	(7761)	4.05	4.00	16.62	16.00	4.76	4.00	---
Extra Strength Guano	(7907)	4.03	4.00	17.30	16.00	4.52	4.00	---
Gilt Edge Crop Guano	(7757)	2.16	2.00	8.80	8.00	10.25	10.00	---
Gilt Edge Crop Guano	(7977)	2.00	2.00	9.18	8.00	10.25	10.00	---
Peerless Fertilizer	(7386)	1.29	1.00	10.43	10.00	6.17	5.00	---
Planter's Pride	(7759)	3.13	3.00	12.71	12.00	6.29	6.00	---
Planter's Pride	(7904)	3.07	3.00	12.38	12.00	6.91	6.00	---
Reliable Crop Grower	(7388)	2.12	2.00	12.24	12.00	4.18	4.00	---
Reliable Crop Grower	(7974)	2.12	2.00	12.76	12.00	4.50	4.00	---
Royal Fish Guano	(7758)	2.14	2.00	12.32	12.00	6.40	6.00	---
Royal 4-8-8 Guano	(7760)	4.01	4.00	8.35	8.00	8.38	8.00	---
Royal 4-8-8 Guano	(7806)	4.01	4.00	8.24	8.00	8.17	8.00	---
Special Guano	(7387)	2.01	2.00	9.70	9.00	5.40	5.00	---
Special Guano	(7973)	2.12	2.00	10.31	9.00	5.25	5.00	---
Truck & Potato Special	(7756)	5.09	5.00	10.58	10.00	5.94	5.00	---
Truck & Potato Special	(7908)	4.91	5.00	11.02	10.00	5.41	5.00	---
Wheat & Grain Special	(7762)	2.09	2.00	12.04	12.00	6.56	6.00	---
Wheat & Grain Special	(7909)	2.16	2.00	12.96	12.00	6.49	6.00	---
Wheat & Grain Special	(7975)	2.07	2.00	12.74	12.00	6.52	6.00	---
INDEPENDENT MANUFACTURING CO. Philadelphia, Pa.								
Consumer	2-8-10 (7689)	3.20	2.00	9.31	8.00	12.37	10.00	---
Consumer	2-12-6 (7661)	3.27	2.00	12.01	12.00	6.09	6.00	---
Consumer	4-12-4 (7690)	4.04	4.00	11.80	12.00	6.91	4.00	---
Consumer	5-8-7 (7660)	5.29	5.00	8.09	8.00	7.98	7.00	---
Consumer	5-10-10 (7688)	5.80	5.00	9.82	10.00	10.85	10.00	---
Standard	2-10-10 (7658)	3.90	3.00	9.80	10.00	11.22	10.00	---
Standard	5-8-7 (7657)	5.00	5.00	8.28	8.00	6.05	7.00	---
Standard	5-10-10 (7686)	5.28	5.00	10.20	10.00	10.12	10.00	---
Standard	6-8-5 (7685)	6.57	6.00	8.58	8.00	5.61	5.00	---
Standard Matchless								
Market Gardener	4-8-7 (7659)	4.00	4.00	9.95	8.00	7.23	7.00	---
Standard Special Wheat Fertilizer	2-12-5 (7687)	2.30	2.00	*10.88	12.00	4.98	5.00	---
LANCASTER BONE FERTILIZER CO., INC. Quarryville, Pa.								
Conestoga	2-8-10 (7552)	2.05	2.00	9.31	8.00	9.80	10.00	---
Conestoga	2-8-10 (7561)	2.16	2.00	9.10	8.00	9.98	10.00	---
Conestoga	3-12-6 (7406)	3.29	3.00	12.44	12.00	7.09	6.00	---
Conestoga	3-12-6 (7550)	3.14	3.00	13.25	12.00	6.20	6.00	---
Conestoga	3-12-6 (7558)	3.03	3.00	12.63	12.00	6.25	6.00	---
Conestoga Fish Compound	(7560)	2.00	2.00	11.36	10.00	5.40	5.00	---
Conestoga Grain Special	(7559)	2.21	2.00	12.73	12.00	6.08	6.00	---
Conestoga Grain Special	(7551)	2.26	2.00	12.59	12.00	6.21	6.00	---
Conestoga Harvest Queen	(7407)	2.15	2.00	9.41	9.00	5.78	5.00	---
Conestoga Harvest Queen	(7553)	2.01	2.00	9.78	9.00	4.81	5.00	---
Conestoga Harvest Queen	(7562)	2.18	2.00	10.05	9.00	5.74	5.00	---
Conestoga Potato Special	(7548)	4.08	4.00	11.03	10.00	8.14	8.00	---
Conestoga Potato Special	(7556)	4.03	4.00	10.47	10.00	8.20	8.00	---
Conestoga Truckers								
Special	(7549)	3.81	4.00	8.73	8.00	8.08	8.00	---
Conestoga Truckers Special	(7557)	4.01	4.00	8.44	8.00	8.20	8.00	---
FRED E. LORD INC. Espy, Pa.								
Lord's	2-8-10 (7414)	2.26	2.00	8.83	8.00	10.09	10.00	---
Lord's	2-12-6 (7410)	2.17	2.00	12.92	12.00	6.47	6.00	---
Lord's	4-8-8 (7409)	4.29	4.00	8.62	8.00	8.64	8.00	---
Lord's	5-10-5 (7413)	5.16	5.00	10.78	10.00	6.37	5.00	---
MILLER CHEMICAL & FERTILIZER CORP. Baltimore, Md.								
Harvest Queen	2-9-5 (7515)	2.90	2.00	9.72	9.00	5.74	5.00	---
Rich Yield	2-12-6 (7518)	2.10	2.00	12.55	12.00	6.54	6.00	---
Rich Yield	3-12-6 (7540)	3.06	3.00	12.37	12.00	6.20	6.00	---
Rich Yield Potato & Vegetable	4-8-8 (7516)	4.09	4.00	8.18	8.00	8.62	8.00	---
Rich Yield	4-12-4 (7544)	4.19	4.00	12.21	12.00	4.30	4.00	---
Rich Yield Tomato Food	4-14-6 (7539)	4.24	4.00	14.26	14.00	6.01	6.00	---
Rich Yield	4-16-4 (7517)	4.01	4.00	17.00	16.00	4.20	4.00	---
Rich Yield	5-10-5 (7543)	5.12	5.00	10.47	10.00	5.78	5.00	---
FENN FRUIT CO., INC. Philadelphia, Pa.								
Acid Plant Food	(7830)	3.64	3.00	8.88	7.00	9.02	6.00	---
WARNER W. PRICE Smyrna, Del.								
Price's	4-12-4 (7997)	4.43	4.00	12.04	12.00	5.18	4.00	---
READING BONE FERTILIZER COMPANY Reading, Pa.								
Reading	4-8-3 (7538)	4.61	4.00	9.23	8.00	9.61	8.00	---
Reading All Crop Special	2-12-6 (7537)	2.23	2.00	12.77	12.00	6.80	6.00	---
*Deficient								

TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME	NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH			
	Found	Guar.	Found	Guar.	Found	Guar.	As Muriate	
ROBERT A. REICHARD, INC. Allentown, Pa.		P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	
Reichard's Animal Base	2-9-5 (7755)	2.13	2.00	9.38	9.00	5.29	5.00	---
Reichard's Animal Base	3-12-6 (7408)	2.86	3.00	12.47	12.00	6.13	6.00	---
Reichard's Animal Base	3-12-6 (7828)	3.00	3.00	12.86	12.00	6.52	6.00	---
Reichard's Animal Base	4-8-8 (7812)	3.93	4.00	8.46	8.00	8.77	8.00	---
Reichard's Animal Base	4-8-8 (7826)	3.80	4.00	8.17	8.00	8.40	8.00	---
Reichard's Animal Base	4-12-4 (7827)	4.02	4.00	12.26	12.00	4.93	4.00	---
Reichard's Animal Base	5-10-5 (7752)	*4.52	5.00	10.10	10.00	9.82	10.00	---
Reichard's Animal Base	5-10-10 (7825)	5.00	5.00	10.22	10.00	10.12	10.00	---
F. S. ROYSTER GUANO COMPANY Baltimore, Md.								
Royster Banner Guano	(7599)	2.00	2.00	9.23	8.00	10.23	10.00	---
Royster Big Bully Guano	(7509)	2.14	2.00	10.08	9.00	4.96	5.00	---
Royster Big Bully Guano	(7979)	2.28	2.00	9.06	9.00	5.56	5.00	---
Royster Curlew Guano	(7405)	3.15	3.00	12.49	12.00	6.29	6.00	---
Royster Dependable Guano	(7603)	5.23	5.00	10.96	10.00	5.02	5.00	---
Royster Gem Grain Guano	(7602)	2.25	2.00	12.35	12.00	4.77	4.00	---
Royster Hercules Guano	(7507)	4.27	4.00	16.84	16.00	4.70	4.00	---
Royster Hercules Guano	(7978)	4.19	4.00	15.84	16.00	5.14	4.00	---
Royster Master Grain Guano	(7508)	2.11	2.00	13.01	12.00	6.12	6.00	---
Royster Triumph Guano	(7597)	3.29	3.00	12.60	12.00	6.16	6.00	---
Royster Triumph Guano	(7980)	3.04	3.00	13.02	12.00	6.42	6.00	---
Royster Trojan Guano	(7601)	4.22	4.00	12.37	12.00	4.33	4.00	---
Royster Trusty Guano	(7506)	4.22	4.00	9.05	8.00	8.05	8.00	---
Royster Trusty Guano	(7604)	4.07	4.00	9.46	8.00	8.00	8.00	---
Royster Trusty Guano	(7919)	4.14	4.00	8.49	8.00	8.55	8.00	---
Royster Trusty Guano	(7981)	4.16	4.00	8.92	8.00	8.48	8.00	---
Royster Fertilizer	4-16-10 (7600)	4.28	4.00	16.80	16.00	9.89	10.00	---
M. L. SHOEMAKER & CO., INC. Philadelphia, Pa.								
Swift Sure	2-8-10 (7878)	2.25	2.00	8.39	8.00	10.47	10.00	---
Swift Sure	2-9-5 (7679)	2.29	2.00	9.39	9.00	5.26	5.00	---
Swift Sure	3-12-6 (7677)	3.21	3.00	12.76	12.00	6.87	6.00	---
Swift Sure	4-8-7 (7648)	4.15	4.00	8.96	8.00	7.61	7.00	---
Swift Sure	4-8-10 (7649)	4.15	4.00	8.37	8.00	10.21	10.00	---
Swift Sure	4-12-4 (7650)	3.87	4.00	12.32	12.00	*3.58	4.00	---
Swift Sure	5-8-7 (7676)	5.10	5.00	8.62	8.00	7.01	7.00	---
Swift Sure	5-10-5 (7651)	5.15	5.00	10.03	10.00	6.39	5.00	---
SOMERSET COUNTY FERTILIZER WORKS INC., Somerset, Pa.								
Beaver Brand	2-8-10 (7940)	*1.75	2.00	9.49	8.00	10.93	10.00	---
Beaver Brand	2-9-5 (7947)	*1.77	2.00	9.90	9.00	5.96	5.00	---
Beaver Brand	2-12-4 (7944)	2.03	2.00	12.18	12.00	4.98	4.00	---
Beaver Brand	3-12-6 (7938)	2.85	3.00	13.03	12.00	6.32	6.00	---
Beaver Brand	4-8-8 (7941)	4.01	4.00	8.36	8.00	8.81	8.00	---
Beaver Brand	4-8-8 (7912)	4.17	4.00	8.37	8.00	8.83	8.00	---
Beaver Brand	4-8-8 (7943)	4.06	4.00	9.13	8.00	8.69	8.00	---
Beaver Brand	4-12-4 (7911)	4.30	4.00	13.04	12.00	4.95	4.00	---
Beaver Brand	4-12-4 (7945)	*3.72	4.00	13.22	12.00	4.74	4.00	---
Beaver Brand	5-10-5 (7939)	5.28	5.00	11.44	10.00	10.43	10.00	---
STARKEY FARMS CO. Morrisville, Pa.								
Sterkey's	3-12-6 (7814)	3.62	3.00	*11.36	12.00	7.63	6.00	---
Sterkey's	4-16-10 (7813)	4.21	4.00	15.80	16.00	13.10	10.00	---
SWACK FERTILIZER COMPANY DuBois, Pa.								
Swack's	2-8-10 (7717)	2.08	2.00	8.18	8.00	10.71	10.00	---
Swack's	2-8-10 (7869)	2.30	2.00	9.78	8.00	10.03	10.00	---
Swack's	2-9-5 (7713)	2.29	2.00	8.92	9.00	5.00	5.00	---
Swack's	2-12-4 (7595)	2.22	2.00	12.11	12.00	4.03	4.00	---
Swack's	2-12-4 (7715)	2.21	2.00	11.93	12.00	4.17	4.00	---
Swack's	2-12-6 (7596)	2.12	2.00	13.48	12.00	5.80	6.00	---
Swack's	2-12-6 (7624)	2.24	2.00	12.62	12.00	5.85	6.00	---
Swack's	2-12-6 (7716)	2.19	2.00	11.93	12.00	5.87	6.00	---
Swack's	3-12-6 (7714)	3.24	3.00	12.91	12.00	6.01	6.00	---
Swack's	4-8-8 (7720)	4.04	4.00	8.01	8.00	8.26	8.00	---
Swack's	4-12-4 (7721)	4.28	4.00	12.58	12.00	4.66	4.00	---
Swack's	4-16-4 (7719)	4.29	4.00	16.10	16.00	4.46	4.00	---
Swack's	5-10-5 (7718)	5.25	5.00	10.31	10.00	5.17	5.00	---
SWIFT & COMPANY FERTILIZER WORKS Baltimore, Md. Cleveland, Ohio								
Swift's Red Steer	2-8-10 (7505)	2.00	2.00	9.15	8.00	10.05	10.00	---
Swift's Red Steer	2-8-10 (7936)	2.01	2.00	8.67	8.00	10.02	10.00	---
Swift's Red Steer	2-8-10 (7995)	2.24	2.00	8.24	8.00	10.03	10.00	---
Swift's Red Steer	2-9-5 (7415)	2.02	2.00	9.65	9.00	6.03	5.00	---
Swift's Red Steer	2-9-5 (7534)	2.23	2.00	9.76	9.00	5.74	5.00	---
Swift's Red Steer	2-9-5 (7824)	2.04	2.00	9.89	9.00	5.76	5.00	---
Swift's Red Steer	2-9-5 (7991)	2.59	2.00	10.15	9.00	5.54	5.00	---
Swift's Red Steer	2-12-4 (7823)	2.19	2.00	12.36	12.00	4.71	4.00	---
Swift's Red Steer	2-12-6 (7416)	2.17	2.00	12.36	12.00	6.50	6.00	---
Swift's Red Steer	2-12-6 (7502)	2.17	2.00	12.35	12.00	6.36	6.00	---
Swift's Red Steer	2-12-6 (7590)	2.06	2.00	12.31	12.00	6.40	6.00	---
Swift's Red Steer	2-12-6 (7822)	2.12	2.00	12.62	12.00	7.07	6.00	---
Swift's Red Steer	2-12-6 (7933)	2.05	2.00	12.21	12.00	6.57	6.00	---
Swift's Red Steer	3-12-6 (7591)	3.23	3.00	12.72	12.00	6.03	6.00	---
Swift's Red Steer	4-8-8 (7417)	4.01	4.00	8.34	8.00	9.66	8.00	---
Swift's Red Steer	4-8-8 (7503)	4.01	4.00	9.33	8.00	7.80	8.00	---
Swift's Red Steer	4-8-8 (7994)	3.85	4.00	8.15	8.00	8.73	8.00	---
Swift's Red Steer	4-12-4 (7935)	4.26	4.00	13.08	12.00	4.62	4.00	---
*Deficient								

*Deficient

TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME			NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		
			Found	Guar.	Found	Guar.	Found	Guar.	As Muriate
			P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
Swift's Red Steer	4-12-4 (7993)		4.13	4.00	11.97	12.00	4.99	4.00	---
Swift's Red Steer	5-10-5 (7937)		5.02	5.00	11.23	10.00	5.25	5.00	---
Swift's Red Steer with Tenkaga	5-13-8 (7839)		5.04	5.00	14.50	13.00	8.09	8.00	---
Vigoro	(7545)		4.22	4.00	12.92	12.00	4.26	4.00	---
I. P. THOMAS & SON COMPANY Camden, N. J.									
Champion Gueno	2-12-6 (7380)		2.27	2.00	12.84	12.00	6.37	6.00	---
Champion Gueno	2-12-6 (7586)		2.28	2.00	12.96	12.00	6.02	6.00	---
Champion Gueno	2-12-6 (7879)		2.25	2.00	12.76	12.00	6.02	6.00	---
Economy	4-12-4 (7582)		4.27	4.00	12.07	12.00	4.56	4.00	---
Economy	4-12-4 (7770)		4.50	4.00	11.85	12.00	4.52	4.00	---
Farmer's Choice	2-12-4 (7669)		2.38	2.00	12.15	12.00	4.79	4.00	---
Tip Top	3-12-6 (7585)		3.55	3.00	12.41	12.00	6.28	6.00	---
Tip Top	3-12-6 (7777)		3.27	3.00	12.58	12.00	7.31	6.00	---
Tip Top	3-12-6 (7891)		3.29	3.00	12.43	12.00	6.27	6.00	---
Victor Potesch Fertilizer	2-9-5 (7773)		2.55	2.00	9.37	9.00	5.94	5.00	---
I. P. Thomas	2-8-10 (7774)		2.29	2.00	8.58	8.00	10.03	10.00	---
I. P. Thomas	4-8-8 (7584)		4.70	4.00	9.43	8.00	7.81	8.00	---
I. P. Thomas	4-8-8 (7775)		4.50	4.00	8.71	8.00	8.19	8.00	---
I. P. Thomas	4-8-8 (7890)		4.29	4.00	8.38	8.00	8.27	8.00	---
I. P. Thomas	4-8-12 (7583)		4.29	4.00	8.69	8.00	11.83	12.00	---
I. P. Thomas	4-16-4 (7581)		4.29	4.00	17.18	16.00	4.34	4.00	---
I. P. Thomas	4-16-4 (7771)		4.28	4.00	17.60	16.00	4.50	4.00	---
I. P. Thomas	4-16-4 (7680)		4.29	4.00	17.28	16.00	4.67	4.00	---
I. P. Thomas	5-10-5 (7580)		5.29	5.00	11.18	10.00	5.28	5.00	---
I. P. Thomas	5-10-5 (7881)		5.01	5.00	12.47	10.00	5.13	5.00	---
I. P. Thomas	5-10-10 (7579)		5.27	5.00	11.50	10.00	9.85	10.00	---
I. P. Thomas	8-16-16 (7381)		8.28	8.00	16.80	16.00	15.90	16.00	---
I. P. Thomas	8-16-16 (7578)		7.89	8.00	18.32	16.00	16.83	16.00	---
I. P. Thomas	8-16-16 (7776)		8.38	8.00	16.10	16.00	16.66	16.00	---
I. P. Thomas	10-6-4 (7577)		10.03	10.00	6.82	6.00	5.09	4.00	---
TRENTON BONE FERTILIZER CO. Trenton, N. J.									
Trenton	3-12-6 (7818)		3.30	3.00	12.17	12.00	7.33	6.00	---
Trenton	4-12-4 (7819)		4.29	4.00	12.57	12.00	4.98	4.00	---
F. W. TURNELL & COMPANY INC. Philadelphia, Pa.									
Turnell's Fertilizer	2-8-10 (7652)		2.11	2.00	7.97	8.00	10.38	10.00	---
Turnell's Fertilizer	2-9-5 (7681)		2.30	2.00	8.94	9.00	5.08	5.00	---
Turnell's Fertilizer	2-12-6 (7684)		2.29	2.00	12.48	12.00	6.47	6.00	---
Turnell's Fertilizer	2-12-6 (7808)		2.51	2.00	12.04	12.00	6.79	6.00	---
Turnell's Fertilizer	3-12-6 (7683)		3.24	3.00	11.90	12.00	6.60	6.00	---
Turnell's Fertilizer	4-8-8 (7653)		4.08	4.00	8.02	8.00	7.81	8.00	---
Turnell's Fertilizer	4-8-8 (7809)		3.90	4.00	8.13	8.00	8.80	8.00	---
Turnell's Fertilizer	4-8-10 (7682)		4.14	4.00	8.06	8.00	9.95	10.00	---
Turnell's Fertilizer	5-8-7 (7654)		5.01	5.00	8.20	8.00	7.27	7.00	---
Turnell's Fertilizer	5-10-5 (7680)		5.01	5.00	10.44	10.00	5.45	5.00	---
Turnell's Fertilizer	5-10-10 (7655)		5.12	5.00	10.08	10.00	11.73	10.00	---
VIRGINIA-CAROLINA CHEMICAL CORP. Baltimore, Md.									
V-C Fertilizer	2-12-4 (7434)		2.29	2.00	12.79	12.00	4.48	4.00	---
V-C Fertilizer	2-12-4 (7706)		2.20	2.00	11.87	12.00	4.76	4.00	---
V-C Fertilizer	2-12-6 (7425)		2.30	2.00	12.99	12.00	6.09	6.00	---
V-C Fertilizer	2-12-6 (7377)		2.29	2.00	11.92	12.00	6.65	6.00	---
V-C Fertilizer	2-12-6 (7705)		2.26	2.00	11.92	12.00	6.04	6.00	---
V-C Fertilizer	2-12-6 (7956)		2.26	2.00	13.08	12.00	6.70	6.00	---
V-C Fertilizer	3-12-6 (7376)		3.55	3.00	12.30	12.00	6.56	6.00	---
V-C Fertilizer	3-12-6 (7420)		3.29	3.00	12.75	12.00	6.14	6.00	---
V-C Fertilizer	3-12-6 (7957)		3.30	3.00	12.73	12.00	6.39	6.00	---
V-C Fertilizer	4-8-8 (7378)		4.11	4.00	8.00	8.00	8.20	8.00	---
V-C Fertilizer	4-8-8 (7512)		4.12	4.00	9.46	8.00	8.01	8.00	---
V-C Fertilizer	4-12-4 (7427)		4.07	4.00	12.92	12.00	5.85	4.00	---
V-C Fertilizer	4-12-4 (7645)		4.03	4.00	12.15	12.00	4.16	4.00	---
V-C Fertilizer	4-12-12 (7424)		4.02	4.00	13.25	12.00	11.82	12.00	---
V-C Fertilizer	4-16-4 (7422)		4.22	4.00	17.44	16.00	4.52	4.00	---
V-C Fertilizer	4-16-4 (7513)		4.18	4.00	17.66	16.00	4.27	4.00	---
V-C Fertilizer	5-10-5 (7423)		5.21	5.00	10.84	10.00	5.24	5.00	---
V-C Fertilizer	5-10-10 (7421)		5.05	5.00	10.82	10.00	9.95	10.00	---
V-C Fish & Potesch Mixture	(7429)		2.14	2.00	9.84	9.00	5.47	5.00	---
V-C Fish & Potesch Mixture	(7455)		2.29	2.00	9.46	9.00	5.83	5.00	---
V-C Fish & Potesch Mixture	(7958)		2.29	2.00	9.61	9.00	5.29	5.00	---
WESTERN PENNSYLVANIA NURSERMAN'S ASSOCIATION, Pittsburgh, Pa.									
Growall Fertilizer	(7642)		6.00	6.00	10.71	10.00	4.35	4.00	---
Average			3.73	---	11.53	---	6.97	---	---
*Deficient									

TABLE IV. GROUND BONE FERTILIZERS—FURNISHING NITROGEN AND PHOSPHORIC ACID

MANUFACTURER AND BRAND NAME	NITROGEN		PHOSPHORIC ACID	
	Found	Guar.	Found	Guar.
BAUGH & SONS COMPANY Baltimore Md.	P. ct.	P. ct.	P. ct.	P. ct.
Baugh's Rew Bone Meal Warranted Pure (7665)	4.15	3.70	21.20	20.50
Baugh's Rew Bone Meal Warranted Pure (7927)	3.62	3.70	22.90	20.50
DAVISON CHEMICAL CORPORATION Baltimore Md.				
Pure Rew Bone Meal (7786)	4.02	3.70	21.60	20.00
PAUL J. DEVITT Upper Derby, Pa.				
Devco Ground Bone (7832)	2.79	2.45	25.70	23.00
FOX FERTILIZER Collingewood, N. J.				
Bone Meal (7829)	4.06	2.47	23.40	23.00
GRIFFITH & BOYD COMPANY Baltimore, Md.				
Griffith & Boyd Pure Fine Ground Bone Meal (7910)	4.06	3.70	22.40	20.00
J. & L. ADIKES Jamaica, N. Y.				
Gro-well Bone Meal (7375)	2.68	2.25	26.20	21.25
F. S. ROYSTER GUANO COMPANY Baltimore, Md.				
Royster Rew Bone Meal (7511)	4.09	3.70	21.60	20.60
SWIFT & COMPANY FERTILIZER WORKS Baltimore, Md.				
Swift's Bone Meal Fertilizer (7668)	2.51	2.47	26.70	23.00
Swift's Bone Meal Fertilizer (7675)	2.62	2.47	25.30	23.00
Swift's Red Steer 2-26 Bone Fertilizer (7845)	2.08	2.00	27.40	26.00
Average	3.33	----	24.04	----

TABLE V. SUPERPHOSPHATE AND LIME PHOSPHATE FERTILIZERS—FURNISHING PHOSPHORIC ACID

MANUFACTURER AND BRAND NAME		PHOSPHORIC ACID					
		Total		Available		Insoluble	
		Found	Guar.	Found	Guar.	Found	Guar.
		P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
<u>SUPERPHOSPHATE FERTILIZERS</u>							
THE ACME GUANO COMPANY Baltimore, Md.							
Acme 20% Superphosphate	(8036)			20.80	20.00		
THE AMERICAN AGRICULTURAL CHEMICAL CO. New York, N. Y.							
AA 16% Superphosphate	(7477)			17.20	16.00		
AA 20% Superphosphate	(7484)			21.20	20.00		
AA 20% Superphosphate	(7616)			21.32	20.00		
AA 20% Superphosphate	(7712)			20.22	20.00		
AA 20% Superphosphats	(7751)			20.02	20.00		
AA 20% Superphosphats	(7790)			21.56	20.00		
AA 20% Superphosphate	(7811)			23.06	20.00		
AA 20% Superphosphate	(7929)			21.16	20.00		
AA 20% Superphosphate	(7987)			21.30	20.00		
AA 20% Superphosphate	(8021)			21.66	20.00		
18% Normal Superphosphate	(7472)			19.90	18.00		
18% Normal Superphosphate	(7612)			19.62	18.00		
18% Normal Superphosphats	(7789)			19.70	18.00		
18% Normal Superphosphate	(7893)			19.72	18.00		
18% Normal Superphosphate	(8038)			20.08	18.00		
ARMOUR FERTILIZER WORKS Baltimore, Md.							
Armour's Big Crop Superphosphate 20%	(8044)			21.12	20.00		
Armour's Big Crop Superphosphate 16%	(7455)			16.06	16.00		
Armour's Big Crop Superphosphate 20%	(7385)			20.78	20.00		
Armour's Big Crop Superphosphate 20%	(7622)			20.76	20.00		
Armour's Big Crop Superphosphats 20%	(7701)			20.34	20.00		
Armour's Big Crop Superphosphate 20%	(7963)			21.50	20.00		
	(7445)			20.84	20.00		
BALTIMORE FERTILIZER COMPANY Baltimore, Md.							
Honest 16% Superphosphate	(7500)			16.06	16.00		
Honest 20% Superphosphate	(7501)			21.38	20.00		
BAUGH & SONS COMPANY Philadelphia, Pa.							
Baugh's 20% Superphosphats	(7459)			20.46	20.00		
Baugh's 20% Superphosphate	(7664)			20.08	20.00		
Baugh's 20% Superphosphate	(7734)			19.80	20.00		
Baugh's 20% Superphosphate	(7990)			21.48	20.00		
Baugh's 20% Superphosphate	(8015)			21.58	20.00		
CENTRAL CHEMICAL CORPORATION Hagerstown, Md.							
Farmrite Superphosphate 16%	(7441)			16.30	16.00		
Farmrite Superphosphate 20%	(7440)			20.92	20.00		
Farmrite Superphosphate 20%	(7496)			20.70	20.00		
Farmrite Superphosphate 20%	(7639)			20.34	20.00		
Farmrite Superphosphats 20%	(7900)			20.95	20.00		
Farmrite Superphosphate 20%	(7999)			20.80	20.00		
COOPERATIVE FERTILIZER SERVICE Baltimore, Md.							
C. F. S. 20% Superphosphate	(7610)			20.80	20.00		
C. F. S. Quality 20% Granulated Superphosphate	(7916)			20.92	20.00		
CUMBERLAND VALLEY COOPERATIVE ASSOCIATION Shippensburg, Pa.							
Old Reliable 20% Superphosphate	(7546)			20.24	20.00		
DAVISON CHEMICAL CORPORATION Baltimore, Md.							
Old Reliable 20% Superphosphate	(7644)			20.90	20.00		
Devco Granulated 20% Superphosphate	(7628)			21.52	20.00		
Devco Granulated 20% Superphosphate	(7779)			21.14	20.00		
Devco Granulated 20% Superphosphate	(7948)			21.40	20.00		
Devco 20% Superphosphats	(7443)			21.48	20.00		
Devco 20% Superphosphate	(7696)			21.72	20.00		
Devco 20% Superphosphate	(8002)			20.52	20.00		
EASTERN STATES FARMERS' EXCHANGE Springfield, Mass.							
Eastern States 20% Superphosphate	(7969)			24.32	20.00		
Eastern States 20% Superphosphate	(8017)			21.68	20.00		
Eastern States 20% Superphosphate Pulverized	(7494)			20.86	20.00		

TABLE V. SUPERPHOSPHATE AND LIME PHOSPHATE FERTILIZERS—FURNISHING PHOSPHORIC ACID

MANUFACTURER AND BRAND NAME	PHOSPHORIC ACID					
	Total		Available		Insoluble	
	Found P. ct.	Guar. P. ct.	Found P. ct.	Guar. P. ct.	Found P. ct.	Guar. P. ct.
Eastern States 20% Superphosphata Pulverized (7694)			20.34	20.00		
Eastern States 47% Triple Superphosphate (7692)			47.56	47.00		
Eastern States 47% Triple Superphosphate (7972)			47.00	47.00		
AMOS EBY & COMPANY Paradise, Pa.						
Eby Superphosphate 16% (7576)			16.54	16.00		
Eby Superphosphate 20% (7575)			20.58	20.00		
GRIFFITH & BOYD COMPANY Baltimore, Md.						
Special 20% Superphosphate (7763)			21.58	20.00		
Special 20% Superphosphate (7905)			21.38	20.00		
INDEPENDENT MANUFACTURING CO. Philadelphia, Pa.						
Independant 20% Superphosphata (7662)			20.10	20.00		
LANCASTER BONE FERTILIZER CO., INC. Quarryville, Pa.						
Conestoga Brand Superphosphata 18% (7555)			19.34	18.00		
Conestoga Brand Superphosphate 18% (7564)			18.96	18.00		
FRED E. LORD INC. Egpy, Pa.						
Lord's 20% Superphosphate (7412)			21.14	20.00		
MILLER CHEMICAL & FERTILIZER CORP. Baltimore, Md.						
Rich Yield 20% Superphosphata (8006)			22.12	20.00		
READING BONE FERTILIZER WORKS Reading, Pa.						
Reading 20% Superphosphata (7418)			21.67	20.00		
F. S. ROYSTER GUANO COMPANY Baltimore, Md.						
Royater Superphosphata 18% (8028)			21.74	18.00		
Royater Superphosphata 20% (7598)			20.38	20.00		
Royater Superphosphata 20% (7962)			21.56	20.00		
Royater Superphosphata 20% (8026)			21.76	20.00		
SOMERSET COUNTY FERTILIZER WORKS, INC. Somerset, Pa.						
Beaver Brand 20% Superphosphate (7913)			21.92	20.00		
Beaver Brand 20% (7946)			21.70	20.00		
Beaver Brand 20% (8032)			21.32	20.00		
STANDARD WHOLESALE PHOSPHATE & ACID WORKS INC., Baltimore, Md.						
Standard 20% Superphosphate (7541)			20.99	20.00		
Standard 20% Superphosphate (8012)			21.62	20.00		
SWACK FERTILIZER COMPANY DuBois, Pa.						
Sweck's Superphosphate 20% (7594)			21.40	20.00		
Sweck's Superphosphate 20% (7874)			21.66	20.00		
SWIFT & COMPANY FERTILIZER WORKS Baltimore, Md.						
Swift's Red Steer Superphosphate 20% (7504)			21.84	20.00		
Swift's Red Steer Superphosphate 20% (7592)			21.92	20.00		
Swift's Red Steer Superphosphate 20% (7821)			20.98	20.00		
Swift's Red Steer Superphosphate 20% (7833)			21.32	20.00		
Swift's Red Steer Superphosphate 20% (7934)			21.54	20.00		
Swift's Red Steer Superphosphate 20% (7996)			21.86	20.00		
Swift's Red Steer Superphosphate 20% (8009)			21.28	20.00		
I. P. THOMAS & SON COMPANY Camden, N. J.						
16% Superphosphate (7589)			19.02	16.00		
20% Superphosphate (7588)			22.58	20.00		
20% Superphosphate (7882)			22.76	20.00		

TABLE V. SUPERPHOSPHATE AND LIME PHOSPHATE FERTILIZERS—FURNISHING PHOSPHORIC ACID

MANUFACTURER AND BRAND NAME	PHOSPHORIC ACID					
	Total		Available		Insoluble	
	Found	Guar.	Found	Guar.	Found	Guar.
	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
F. W. TUNNELL & CO., INC. Philadelphia, Pa.						
Tunnell's 20% Superphosphate (7656)			20.48	20.00		
VIRGINIA-CAROLINA CHEMICAL CORPORATION Baltimore, Md.						
V-C 16% Superphosphate (7536)			17.76	16.00		
V-C 16% Superphosphate (7707)			16.74	16.00		
V-C 20% Superphosphate (7436)			20.12	20.00		
V-C 20% Superphosphate (7959)			21.96	20.00		
V-C 20% Superphosphate (8031)			21.42	20.00		
YORK STONE & SUPPLY COMPANY York, Pa.						
Cramer's York 20% Superphosphate (7490)			20.96	20.00		
Cramer's York 20% Superphosphate (8023)			21.52	20.00		
Average			21.30	---		
<u>LIME PHOSPHATE FERTILIZERS</u>						
THE AMERICAN AGRICULTURAL CHEMICAL CO. New York, N. Y.						
AA Basic Lime Phosphate 16% (7480)			17.68	16.00		
CENTRAL CHEMICAL CORPORATION Hagerstown, Md.						
Fermrite Carbo Lime Phosphate (7526)			17.34	16.00		
MILLER CHEMICAL & FERTILIZER CORP. Baltimore, Md.						
Rich Yield Lime & Phosphate 16% (7514)			18.14	16.00		
VIRGINIA-CAROLINA CHEMICAL CORP. Baltimore, Md.						
V-C 16% Phosphate & Lime Mixture (7426)			16.30	16.00		
BAUGH & SONS CO. Baltimore, Md.						
Baugh's Lime & Phosphate (7463)			17.60	16.00		
Average			17.41	---		

TABLE VI. ROCK AND POTASH FERTILIZERS—FURNISHING PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME	AVAILABLE PHOSPHORIC ACID		POTASH		
	Found	Guar.	Found	Guar.	As Muriate
	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
THE ACME GUANO COMPANY Baltimore, Md.					
Acme 0-14-7 (8034)	15.16	14.00	6.80	7.00	---
THE AMERICAN AGRICULTURAL CHEMICAL CO. New York, N. Y.					
AA XXX 0-12-12 (8039)	12.14	12.00	14.60	12.00	---
AA Chieftain Mixture 0-14-6 (7486)	14.92	14.00	6.50	6.00	---
AA Chieftain Mixture 0-14-7 (8020)	15.76	14.00	7.33	7.00	---
Agrico 0-14-6 (7475)	15.40	14.00	6.16	6.00	---
Agrico 0-14-6 (7617)	16.00	14.00	5.85	6.00	---
Agrico Alkaline 0-14-7 (7998)	16.24	14.00	7.80	7.00	---
Agrico Alkaline 0-14-7 (8036)	15.50	14.00	7.09	7.00	---
Agrico Alkaline 0-12-12 (8037)	13.64	12.00	12.14	12.00	---
ARMOUR FERTILIZER WORKS Baltimore, Md.					
Armour's Big Crop Fertilizer 0-12-12 (8043)	13.30	12.00	12.78	12.00	---
Armour's Big Crop Fertilizer 0-14-6 (7623)	14.92	14.00	6.00	6.00	---
Armour's Big Crop Fertilizer 0-14-6 (7446)	14.86	14.00	6.17	6.00	---
Armour's Big Crop Fertilizer 0-14-7 (8042)	14.66	14.00	6.97	7.00	---
BAUGH & SONS COMPANY. Baltimore, Md.					
Baugh's Phosphate & Potash Mixture 0-12-5 (7456)	13.73	12.00	5.91	5.00	---
Baugh's Phosphate & Potash Mixture 0-12-12 (7886)	13.51	12.00	*10.20	12.00	---
Baugh's Phosphate & Potash Mixture 0-12-12 (8014)	12.99	12.00	13.18	12.00	---
Baugh's Phosphate & Potash Mixture 0-14-6 (7521)	15.10	16.00	6.24	6.00	---
Baugh's Phosphate & Potash Mixture 0-14-7 (8016)	15.17	14.00	8.08	7.00	---
CENTRAL CHEMICAL CORP. Hagerstown, Md.					
Fermrite Fertilizer 0-12-12 (7529)	*11.59	12.00	12.07	12.00	---
Fermrite Fertilizer 0-12-12 (8001)	12.65	12.00	14.01	12.00	---
Fermrite Fertilizer 0-14-6 (7396)	14.02	14.00	6.71	6.00	---
Fermrite Fertilizer 0-14-6 (7438)	*12.69	14.00	8.61	6.00	---
Fermrite Fertilizer 0-14-6 (7637)	17.58	14.00	8.87	6.00	---
Fermrite Potash Special 0-14-7 (8000)	15.96	14.00	7.23	7.00	---
COOPERATIVE FERTILIZER SERVICE Baltimore, Md.					
C. F. S. 0-14-6 (7918)	13.12	14.00	6.28	6.00	---
COOPERATIVE G. L. F. SOIL BUILDING SERVICE Buffalo, N. Y.					
G. L. F. Quality Open Formula 0-20-10 (7726)	21.94	20.00	10.20	10.00	---
G. L. F. Quality Open Formula 0-20-10 (7768)	20.00	20.00	10.46	10.00	---
G. L. F. Quality Open Formula 0-20-10 (7885)	21.16	20.00	11.35	10.00	---
THE DAVISON CHEMICAL CORPORATION Baltimore, Md.					
Davco Granulated Fertilizer 0-12-12 (8003)	12.75	12.00	12.13	12.00	---
Davco Granulated Fertilizer 0-14-7 (8004)	14.98	14.00	6.55	7.00	---
EASTERN STATES FARMERS' EXCHANGE Springfield, Mass.					
Eastern States 0-20-20 (7691)	19.90	20.00	20.10	20.00	---
Eastern States 0-20-20 (7739)	20.02	20.00	21.26	20.00	---
Eastern States 0-20-20 (7971)	20.48	20.00	20.80	20.00	---
Eastern States 0-20-20 (8018)	21.44	20.00	21.48	20.00	---
Eastern States 0-24-12 (7693)	24.52	24.00	12.01	12.00	---
Eastern States 0-24-12 (7968)	24.72	24.00	13.54	12.00	---
Eastern States 0-24-12 (8019)	24.08	24.00	*10.84	12.00	---
AMOS EBY & COMPANY Paradise, Pa.					
Eby Farmers Mixture (7574)	12.77	12.00	6.48	5.00	---
GRIFFITH & BOYD COMPANY Baltimore, Md.					
Phosphate & Potash 0-14-6 (7976)	15.08	14.00	6.39	6.00	---
LANCASTER BONE FERTILIZER CO., INC. Quarryville, Pa.					
Conestoga Brand 0-14-6 (7554)	15.18	14.00	5.89	6.00	---
Conestoga Brand 0-14-6 (7563)	15.22	14.00	*5.54	6.00	---
FRED E. LORD INC. Espy, Pa.					
Lord's 0-14-6 (7411)	15.64	14.00	6.05	6.00	---
*Deficient					

TABLE VI. ROCK AND POTASH FERTILIZERS—FURNISHING PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME	AVAILABLE PHOSPHORIC ACID		POTASH			
	Found	Guar.	Found	Guar.	As Muriate	
	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	
MILLER CHEMICAL & FERTILIZER CORP. Baltimore, Md.						
Rich Yield Fertilizer	0-12-12 (8007)	12.36	12.00	12.53	12.00	---
Rich Yield Fertilizer	0-14-7 (8005)	14.76	14.00	7.80	7.00	---
F. S. ROYSTER GUANO COMPANY Baltimore, Md.						
Royster Phosphate & Potash	0-12-12 (8027)	13.32	12.00	12.70	12.00	---
Royster Phosphate & Potash	0-14-6 (7510)	15.96	14.00	5.99	6.00	---
Royster Phosphate & Potash	0-14-7 (8025)	15.28	14.00	7.65	7.00	---
SOMERSET COUNTY FERTILIZER WORKS Somerset, Pa.						
Beaver Brand	0-12-5 (7942)	11.94	12.00	6.15	5.00	---
Beaver Brand	0-14-7 (8033)	15.10	14.00	8.32	7.00	---
STANDARD WHOLESALE PHOSPHATE & ACID WORKS INC. Baltimore, Md.						
Standard	0-12-12 (8013)	14.13	12.00	*10.31	12.00	---
Standard	0-14-7 (8011)	15.70	14.00	8.58	7.00	---
SWACK FERTILIZER COMPANY DuBois, Pa.						
Swack's	0-14-6 (7593)	15.26	14.00	6.32	6.00	---
SWIFT & COMPANY FERTILIZER WORKS Baltimore, Md.						
Swift's Red Steer	0-14-6 (7535)	14.90	14.00	7.09	6.00	---
Swift's Red Steer	0-14-7 (8010)	14.78	14.00	8.10	7.00	---
Swift's Red Steer	0-12-12 (7992)	12.52	12.00	12.66	12.00	---
Swift's Red Steer	0-12-12 (8008)	13.60	12.00	13.57	12.00	---
I. P. THOMAS & SON CO. Camden, N. J.						
Potash Mixture	0-14-6 (7587)	16.36	14.00	*4.98	6.00	---
Dairymen's Special	0-12-12 (7772)	12.38	12.00	12.37	12.00	---
Potash Mixture	0-14-6 (7892)	15.02	14.00	6.40	6.00	---
F. W. TUNNELL & COMPANY INC. Philadelphia, Pa.						
Tunnell's Fertilizer	0-12-12 (8046)	12.59	12.00	12.97	12.00	---
Tunnell's Fertilizer	0-14-7 (8045)	15.00	14.00	8.36	7.00	---
UNION FERTILIZER CORPORATION Pikesville, Md.						
Union Fertilizer	0-12-12 (8041)	12.04	12.00	12.08	12.00	---
Union Fertilizer	0-14-7 (8040)	13.90	14.00	7.86	7.00	---
VIRGINIA-CAROLINA CHEMICAL CORP. Baltimore, Md.						
V-C Fertilizer	0-12-12 (7428)	13.16	12.00	11.89	12.00	---
V-C Fertilizer	0-12-12 (8029)	12.98	12.00	12.35	12.00	---
V-C Fertilizer	0-14-6 (7430)	15.06	14.00	6.48	6.00	---
V-C Fertilizer	0-14-6 (7708)	14.90	14.00	6.36	6.00	---
V-C Fertilizer	0-14-7 (8030)	15.28	14.00	7.66	7.00	---
YORK STONE & SUPPLY COMPANY York, Pa.						
Cramer's Fertilizer	0-14-7 (8024)	14.66	14.00	8.68	7.00	---
Average		15.43	----	9.58	----	---
*Deficient						

TABLE VII. MISCELLANEOUS FERTILIZERS

MANUFACTURER AND BRAND NAME	NITROGEN				PHOSPHORIC ACID						POTASH		
	Found		Guar.		Total		Available		Insoluble		Found	Guar.	As Muriate
	P. ct.	P. ct.	P. ct.	P. ct.	Found	P. ct.	Found	P. ct.	Found	P. ct.	P. ct.	P. ct.	P. ct.
<u>NITRATE OF SODA</u> CHILEAN NITRATE SALES CORPORATION New York, N. Y. Champion Brand Chilean Nitrate of Soda (7785)	16.05	16.00	---	---	---	---	---	---	---	---	---	---	---
<u>MURIATE OF POTASH</u> SWIFT & COMPANY FERTILIZER WORKS Baltimore, Md. Swift's Muriate of Potash (8022)	---	---	---	---	---	---	---	---	---	---	49.40	48.00	---